

Work Order ID 138108

Friday, October 23, 2015 2:47:05 PM

138108

To Rev A Drawing 8/10/12/23
~~PRELIMINARY ISSUE~~

Page 1

Item ID: D5333-1
Revision ID: PRELIM
Item Name: Locking Bracket



Accept

N900040100 Setup Start *NS1*
Stop *NS2*

Start Date: 10/23/2015 Start Qty: 1.00 *1*
Required Date: 10/23/2015 Req'd Qty: 1.00 *1*

Cust Item ID:
Customer:

Reference:

Approvals: Process Plan: MLS Date: OCT 26 2015 Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D5333	<u>A3</u>								

100 Cut blanks as per folio 0.00

100

Bandsaw

Memo

0.01

Jeaspa Bandsaw

CUT BLANK 1.55" LONG

110

0.00

110

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

MACHINE AS PER FOLIO FB431 AND DWG

FOLIO REV: AA

DWG REV: A3

DEBURR

4 _____ 15-11-06

4 ✓ _____ 15/10/07

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Counter-sink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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138108

PRELIMINARY ISSUE

Page 2

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 10/23/2015 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 10/23/2015 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

OC

Memo

0.00

Quality Control

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

160

Identify as per dwg & Stock Location: 2/KEL/19 0.00

0.00

160

Packaging

Memo

0.00

Packaging

LOCATION: WA004

DAS
38

DEC 18 2015

DAS
38

DEC 9 2015

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Friday, October 23, 2015 2:47:05 PM

PRELIMINARY ISSUE

Page 3

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N9000401 00

Setup Start *NS1*

Stop *NS2*

Start Date: 10/23/2015 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 10/23/2015 Req'd Qty: 1.00 * 1 *

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

[illegible]

MCS JAN 12 2016

POSITIVE RECALL

EFFECTIVE OCT 2 2 1965 DAS AUTH MUS

RELEASED 16 DATE 16/9/73

RD15-1016-01

To Rev A Davis

8/6/23

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : _____									

Picklist Print

Friday, October 23, 2015 2:47:09 PM

PRELIMINARY ISSUE

Page 1

Work Order ID: 138108

138108

Parent Item: D5333-1

D5333-1

Parent Item Name: Locking Bracket

Start Date: 10/23/2015

Required Date: 10/23/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 15-10-23 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304B1.000X1.000		Purchased	No				f	4.8740		0.140316			

M304B1 000X1 000

304 bar 1.00 x 1.00

**

SI 15-11-26

Location

Loc Qty

Loc Code

MAT009

4.874

M132546

4.874

~~133560~~ 133560

53

PO 30311

2015/12/09

DQA: _____ Date: _____



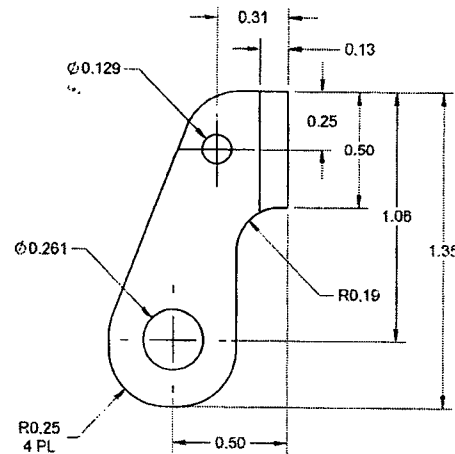
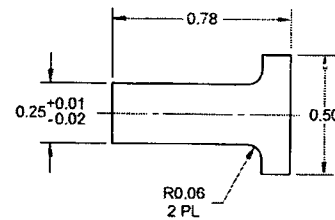
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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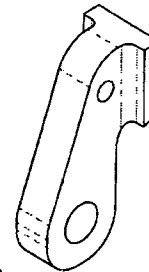
PRELIMINARY ISSUE



D5333-1 LOCKING BRACKET

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

138108 MLJ
15-10-26



NOTES:

- 1) MATERIAL: AISI 304/316 SS BAR OR SS PLATE
PER ASTM A240 OR ASTM A276
REF DART SPEC M304B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.05 lbs

PRELIMINARY ISSUE

A		NEW ISSUE		RF	15.08.10
REV.	DESCRIPTION	BY	DATE		
DESIGN	RF				
DRAWN	RF				
CHECKED	AK				
MFG. APPR.	JLM				
APPROVED					
DE APPR.					
DATE	15.08.10				

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D5333** REV. A3

SHEET 1 OF 1

TITLE **LOCKING BRACKET** SCALE NTS

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ArcelorMittal Dofasco Inc.- Test Report

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558861
Sold To/Vendu A

Ship To/Expédier A

Spec/Note et Spec.
ASTM A1008/A1008M-13 CS TYPE B (13)
STD ASTM, 2/3 FOR HOG GT.075(2MM), WELD OR
SEMI-CRITICAL SURFACE
STANDARD FLATNESS - ASTM FULL TOLERANCE
MATERIAL CERTIFICATION REQUIRED

Material Description/Description du Material
COLD ROLLED STEEL SHEET
COMMERCIAL STEEL
COILS
MATTÉ FINISH OILED

.0440 MIN .0480 X 48 X COIL
Weight - 22300 LBS
Test Methods
ASTM E1019, E415

DAS
9
8-89

HEAT Chemical testing performed by an ISO/IEC 17025 certified laboratory
C Mn P S Si Cu Ni Cr Sn Mo AlSi AlTi Cb V Ti Co N B O
165136 05 .20 .006 .016 .01 .12 .07 .08 .004 .02 .044 .044 .001 .001 .001 .0004 .0042 .0000
SERIAL NUMBER LIFT #
NOMBRE DE SERIE FARDEAU
R59140/02 6345998

CO52872

We Certify That The Material Described Herein Conforms To The Specification Shown On This Document
ArcelorMittal Dofasco Inc. as per Diane Skupny-MacBride - CMTL Supervisor
The Results Relate Only To The Items Tested
This Report Shall Not Be Reproduced Except In full Without The Expressed Written Approval of The CMTL Supervisor.

This Contract Is Subject To The Terms And Conditions Of Sale Shown On The Order Acknowledgement.
Ce Contrat est Sujet aux Termes et Conditions de Vente Indiqués Sur l'Accuse de Reception de Commande.
ArcelorMittal Dofasco Inc. TEST REPORT Attention: Linda Paiment
P.O. Box 2460 RAPPORT D'ESSAI Email: lpaiment@amuel.com
Hamilton, Ontario Date: 06/25/2015
L8N 3J5

Page 1 of 1

Purchase Order/Bon de Commande
C49504-3 JUNE 15
Bill of Lading/Connaissance
558862
Sold To/Vendu A

Customer/Client Sales Order/Bon de Commande Vendor/Vendeur
363960 BS 349458001
Packing Slip/Bordereau de Charge Vehicle or Carrier/Vehicule ou Transporteur
Ship To/Expédier A



Abnahmeprüfzeugnis 3.1 (EN 10204)
Inspection certificate - mill certificate

Nr.: 85170692
 Rev.: 0

01 / 1

Seite / page: 1 von / of 3
 Datum / date: 2015 05 07

Zertifiziert nach / certified to (ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP)

Auftraggeber / customer:	Bestell Nr. / order no.:	C 69965
	Datum / date:	2015 02 05
Warenempfänger / consignee:	Auftragsbest. Nr. / order confirm no.:	688222
	Datum / date:	2015 02 09
	Lieferschein Nr. / delivery note:	85170692
	Datum / date:	2015 05 29

Produkt / product	Bedingungen / terms
Form / form: Sheet Werkstoff / material: 2024 Zustand / temper: T3 Dim. / dim.: (inch): 0,050x48,00x144,00	Technische Lieferbedingungen / techn. spec.: AMS-QQ-A-250/4A, 09.1998 ASTM B 209 - 10 AMS 4037Q, 12.2014 WL 3.1354-1, 12.1987 Cessna CMMP019, Rev. D, 09-07-01 Cessna CMMP025, Rev. U, 05-28-11 ANSI H35.2-2013 ABM 1-8015, Issue 2, OCT 2004 AIR9048-110, 26 December 1978 Sondervorschrift / special terms:

0050449
 0050456

AP-Proc. ord. item	ENF-Contr. Lot No. / PCN	Guiss Nr. cast no.	Werkstoff material	Kolle packing	Gewicht netto weight net	Stk. pos.
05	68988/01/00	01/0067462/5	2024	6882220002	2427,249 lbs	70
05	68988/01/00	01/0067462/5	2024	6882220003	2215,808 lbs	64

Chemische Zusammensetzung (in Gewichtsanteile) / Chemical composition (in weight proportion (wt%))											
Guiss Nr. / cast no.	material	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Ti+Zr	Others Each
01/0067462/5	2024	-	-	3,8	0,30	1,2	-	-	-	-	-
	spec. min.	-	-	3,8	0,30	1,2	-	-	-	-	-
	spec. max.	0,50	0,50	4,9	0,90	1,8	0,10	0,25	0,15	0,20	0,05
	actual	0,10	0,11	4,5	0,52	1,5	0,01	0,16	0,04	0,05	0,02
		Others Total									
	spec. min.	-									
	spec. max.	0,15									
	actual	0,04									



Abnahmeprüfzeugnis 3.1 (EN 10204)
Inspection certificate - mill certificate

Nr.: 85170692

01 / 1

Rev.: 0

Seite / page:

2 von / of 3

Datum / date:

2015 05 07

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Zugprüfung LT / tensile test LT									
BNr/Los Lot/No.	Zustand temper	Richtung direction	Tests		UTS [ksi]	YS [ksi]	A2" [%]		
				spec.min.	63,8	42,1	15		
				spec.max.	-	-	-		
68968/01	T3	LT	6	from	67,3	48,6	17		
68968/01	T3	LT		to	67,7	49,0	18		

Elektr. Leitfähigkeit GB / elect. Conductivity GB									
BNr/Los Lot/No.	Zustand temper	Tests		L / ec [% IACS]	ΔL / Δec per batch [% IACS]				
			spec.min.	-	-				
			spec.max.	32,8	2,6				
68968/01	T3	18	from	30,2	0,3				
68968/01	T3		to	30,5	0,3				

Sonstige Prüfungen / other tests
 Biegeversuch: OK. / Transverse bend test: OK.
 Interkristalline Korrosion: OK. / Intergranular corrosion: OK.
 Maßkontrolle: OK. / Dimensional Check: OK.
 Oberfläche: OK. / Surface inspection: OK.

Bemerkungen / notes
 Die Dimensionstoleranzen entsprechen ANSI XXX /
 As standard, dimensional tolerances are to ANSI XXX



Abnahmeprüfzeugnis 3.1 (EN 10204)
Inspection certificate - mill certificate

Nr.: 85170692 01 / 1
Rev.: 0

Seite / page: 3 von / of 3

Datum / date: 2015 05 07

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, ENAS 9100, ISO 14001, NADCAP

Ausgestellt nach Airbus Zulassung Nr. 30272.

Wir bestätigen, dass die gesamte Lieferung unter Einhaltung und soweit oben nicht anders dargelegt aller Forderungen (Spezifikationen, Zeichnungen, Aufträge) hergestellt und geprüft wurde.

Das Qualitätsmanagementsystem erfüllt die Anforderungen der AUK/SA/001-3.

Hergestellt, kontrolliert und geprüft nach Hawker Beechcraft HBIFSAS/PART3/0771

Agusta Westland Genehmigung Lieferantenummer V21275

Issued under Airbus Approval No. 30272.

Certified that the whole of the supplies detailed hereon have been manufactured, inspected, tested and unless otherwise stated above conform in all respects to the Specifications, Drawings and Contract.

Order relevant thereto The Quality Management System arrangements in respect of these supplies comply with the requirements of AUK/SA/001-3.

Manufactured, inspected and tested according Hawker Beechcraft HBIFSAS/PART3/0771

Agusta Westland approval supplier code V21275

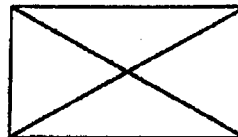
Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht.

We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Hersteller / Factory	E-Mail / E-mail
Rendi Herbert	h.rendi@amag.at

Herstellerland: Österreich / goods origin: The goods are of Austrian origin.

Maschinell erstellt - Gültig ohne Unterschrift / Automated - valid without being signed.



Acciaierie Valbruna S.p.A.



CERTIFICATO DI COLLAUDO
ABNAHMEPRUEFZEUGNIS
INSPECTION CERTIFICATE
CERTIFICAT DE RECEPTION
EN 10204 (2004) , 3.1

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.
S.Iab.: 39100 BOLZANO (Italia) - Via A. Volta, 4
Telephone number : 0039 (0) 44968211

Clienti / Customers / Clients
VALBRUNA CANADA LTD
8724 HOLGATE CRESCENT
L5T 5Z1-MILTON, ONT L5T 5Z1-CA

Produttore: ACCIAIERIE VALBRUNA S.P.A.
Hersteller/Usine producer

Avviso di Spedizione: D-VI14022348
Lieferungsfachung nach L.

Ordine nr: 404004728 Stock - Canada
Bestell-Nr. unter Commande

Certificato nr: MEST544511/2014/
Prüfung/Inspektion

Conferma ordine nr: E114004333
Werkzettel 0 spezif. n.

Marchio di Fabbrica:
Zeichen des Unternehmens
Trade mark
Style de l'usine producteur



Stato di fornitura: Hot rolled Descaled Annealed Hot rolled
Lieferzustand/Delivery state/État de livraison

Tipo di Elaborazione: E+AOD
Erstellung/Herstellung process/Mode d'élaboration

Funzione del Collaudatore:
Stempel des Werkstoffprüfingen
Inspector's stamp/Prüfung des Inspekteur

Specifiche:
Anforderungen / Requirements / Exigences

VSI 0 304/304L A
AISI 304/304L A
ASME SA182 2013 B8 CLASS1 (1)
ASME SA479 2013 B8 CLASS1 (3)
ASTM A262 2013 PRACTICE E
ASTM A320 2011A B8 CLASS1
MIL-S-882 B/1 304/304L
QQ-S-763 F 304/304L A

AISI 304/304L
AMS-QQ-S-763 C 304/304L A
ASME SA276 2013 B8 CLASS1 (2)
ASTM A182 2012B B8 CLASS1 (5)
ASTM A276 2013A B8 CLASS1 (3)
ASTM A479 2013A B8 CLASS1 (7)
NACE MR0103 2010 B8 CLASS1 (3)

AMS 5639 H S30400 A
ASME SA182 2013 B8 CLASS1 (3)
ASME SA320 2013 B8 CLASS1 (3)
ASTM A182 2011A B8 CLASS1 (3)
ASTM A314 2008 B8 CLASS1 (3)
ASTM A479 2013A B8 CLASS1 (7)
NACE MR0175 2009 B8 CLASS1 (3)

- (0) SECTION II PT.A 2013 EDITION
- (1) SECTION II PT.A 2013 EDITION
- (3) SECTION II PT.A 2013 EDITION
- (5) For products machined directly from bar refer also
- (7) Chemical analysis only.
- (7) Technical circular 1.2011 Published 2011-08-14

- (0) For products machined directly from bar refer to ASME SA479.
- (2) SECTION II PT.A 2013 EDITION
- (4) SECTION II PT.A 2013 EDITION
- (5) to ASTM A479.
- (7) ANSI/NACE MR0175/ISO 15156-3, second edition 2009-10-15

Qualità: 304/304L
Werkstoff/Qualitätsbezeichnung

Marchio: AISI
Fertigungsbezeichnung
Qualitätsbezeichnung

Tolleranza: ASTM A484-14 TABLE 5
Toleranz/Dimensionen/Tolérance

Punzonatura: 304/304L
Werkstoffbezeichnung/Qualitätsbezeichnung

Pos. nr. Pos. nr. N. de pièce	Oggetto Objekt Description du produit	Dimensioni - In Abmessungen Dimensions	Lunghezza - In Länge Longueur	Colata Schmelze Matière	Pezzi Stücke Pièces	Peso - LB Gewicht Poids	Lotto nr. Losnr. Lot n.
0020	Flat	3,0000 x 0,8250	144 / 154	264337		2.754	410506850

TEST ALLO STATO DI FORNITURA Test on delivery condition / Prüfung auf Lieferzustand / test à l'état de livraison / Prueba sobre el material así como entregado									
TEST	Proveita/Inspezione Inspektion/Prüfung Inspección/Prueba	F	Snervamento Biegeversuch Essai de flexion Rp 0,2% k.a.l.	Snervamento Biegeversuch Essai de flexion Rp 0,2% k.a.l.	Resistenza Zugversuch Essai de traction Rm k.a.l.	Allungamento Zugversuch Essai de traction E 4d %	Strizione Zugversuch Essai de traction RA %	Resistenza Zugversuch Essai de traction Rm k.a.l.	Durezza Härte Dureté HB
Valori richiesti 1 Anforderungen/Bedingungen Valeurs des essais		min max	30	-	75 115	40	50	-	140 235
A	12,5	68 L	47		90	54	70		185

TEST	min	max
A Grain size for ASTM E112		6

(L) - Lunghezza/Length, T - Temperatura/Temperature, G - Tempo/Duration

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata/Heat Schmelze/Charge	min - max 0,030	1,00	2,00	18,00 20,00	1,00	1,00	8,00 10,00	0,040	0,020 0,030	0,100	-	-	-	-	-
C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %	-	-	-	-	-
264347	0,020	0,43	1,73	18,22	0,78	0,55	8,06	0,103	0,030	0,027	0,097				

Produced without class I-II Ozone depleting substances.
Solution heat treated free from continuous carbide network.
Annealing temperature: 1840°F for 1 h/water.
Micro and macro etch test: OK
Reduction ratio > 4 : 1
Intergranular corrosion test per ASTM A262 pract. E: ok.
Absence of cracks at 20 x magnification after bend test.

Vicenza, 04/07/14 VCC008 N. Acciaierie	Il costruttore di stabilimento / der Werksachverständiger / Works Inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 2
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Acciaierie Valbruna S.p.A.



CERTIFICATO DI COLLAUDO
ABNAHMEPRUEFZEUGNIS
INSPECTION CERTIFICATE
CERTIFICAT DE RECEPTION
EN 10204 (2004) , 3.1

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4
Telephone number : 0039 (0) 44958211

Cliente / Benutzer/Kunde/Klient
VALBRUNA CANADA LTD
8724 HOLGATE CRESCENT
L5T 6Z1-MILTON, ONT L5T 5Z1-CA

Produttore: ACCIAIERIE VALBRUNA S.P.A.
Hersteller/Hersteller/producer

QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER

Avviso di Spedizione: D-VI14022348
Lieferungsbescheinigung: D-VI14022348

Certificato nr: MEST544511/2014/
Prüfung/Inspektion:

Conferma ordine nr: EI14004333
Werkstatt/OrderRef. n.:

Marchio di Fabbrica:
Zeichen des Herstellers
Trade mark
Signe de l'usine/producer



Punzone del Collaudatore:
Stempel des Werkstattschweißingen
Inspector's stamp/Prüfer des f. Stempels



Stato di fornitura: Hot rolled Descaled Annealed Hot rolled
Lieferzustand/Delivery state/Etat de livraison

Tipo di Elaborazione: E+AOD
Erstellungszustand/Erstellungszustand/Erstellungszustand

Material is DFARS Compliant

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind erfüllt worden
The material has been furnished in accordance with the requirements
Le matériaux ont été fournis conformément aux exigences

Controllo chimico/composizione: OK
Vorstoffanalyse/Ergebnis: qualitativ/qualitativ durchgegangen
Analyzing testing performed: OK
Durchgeführt/untersucht/geprüft: i.o.

Controllo visivo e dimensionale: soddisfa le esigenze
Bauabgleich und Abmessung: ohne Einschränkung
Visual inspection and dimensional check/satisfactory
Geeht ein/visuell/dimensionell: zufrieden

Melted and manufactured in Italy No welding or weld repairs Material free from Mercury contamination
We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.
The Quality Management System is Certified acc. Pressure Equipment Directive [97/23/EC] Annex 1, s. 4.3 by TÜV and LLOYD'S
Any act of tampering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.
The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.

Vicenza, 04/07/14
V00088
(Mod. MCE2)

Il collaudatore di stabilimento / der Werkstattschweißingen / Works Inspector / L' agent d' usine

M. Rizzotto

Pagina - 2 di 2

CSS-1

66567



泰州市恒达新型复合材料有限公司
JIANGSU STEEL GROUP CO., LIMITED

质量证明书 (TEST REPORT)

编号: ISS6201505157008

订货单位 CUSTOMER		Canada INC. o/a Distribution SMS																			
收货单位 PURCHASER		Canada INC. o/a Distribution SMS	代号 CUSTOMER'S NO. JSS02-4513																		
技术标准 SPECIFICATION		ASTM A329	客户订单号 CUSTOMER ORDER NO. JSS070150417906A																		
		检验日期 DATE OF ISSUE	2015.05.15																		
		交货日期 DATE OF DELIVERY	2015.05.15																		
产品名称 PRODUCT NAME	规格 SPECIFICATION	材料描述 MATERIAL DESCRIPTION	化学成分 CHEMICAL COMPOSITION % (%分析值 ANALYSIS)	力学性能 MECHANICAL TEST (%分析值 ANALYSIS)	热处理 HEAT TREATMENT	其他 OTHER															
1	304L	1" X 1" X 1/8"	20	2520	0.018	0.33	1.15	0.021	0.009	0.20	18.5	/	/	/	/	315	600	/	/	/	/
2	304L	1-1/2" X 1-1/2" X 1/8"	20	3530	0.012	0.37	1.26	0.031	0.015	0.04	18.7	/	/	/	/	248	351	/	/	/	/
3	304L	2" X 2" X 1/8"	20	1534	0.015	0.31	1.25	0.027	0.011	0.21	18.4	/	/	/	/	233	340	/	/	/	/
4	304L	1" X 1" X 3/16"	20	1021	0.020	0.35	1.29	0.019	0.017	0.27	18.3	/	/	/	/	254	502	/	/	/	/
5	304L	2" X 2" X 3/16"	20	2551	0.018	0.36	1.22	0.026	0.012	0.32	18.2	/	/	/	/	147	659	/	/	/	/
6	304L	1" X 1" X 1/4"	20	1034	0.022	0.40	1.30	0.018	0.015	0.22	18.5	/	/	/	/	338	641	/	/	/	/
7	304L	1-1/4" X 1-1/4" X 1/4"	20	1049	0.023	0.35	1.27	0.017	0.013	0.11	18.7	/	/	/	/	245	389	/	/	/	/
8	304L	2" X 2" X 1/4"	20	9162	0.026	0.36	1.23	0.025	0.020	0.17	18.2	/	/	/	/	243	610	/	/	/	/
9	304L	2" X 3" X 1/4"	20	3538	0.022	0.45	1.26	0.033	0.016	0.21	18.3	/	/	/	/	321	640	/	/	/	/
10	304L	4" X 4" X 1/2"	20	2017	0.017	0.38	1.23	0.029	0.017	0.15	18.1	/	/	/	/	251	653	/	/	/	/
11	316L	1/2" X 2" X 1/4"	20	3042	0.019	0.33	1.28	0.034	0.017	0.22	16.3	2.20	/	/	/	273	596	/	/	/	/
12	304	1/2" X 1/2" X 1/4"	12	2518	0.042	0.26	1.19	0.037	0.018	0.23	18.2	/	/	/	/	549	739	/	/	/	/
13	304	1"	12	1010	0.039	0.39	1.25	0.034	0.013	0.21	18.7	/	/	/	/	632	807	/	/	/	/
14	304	1"	12	595	0.066	0.33	1.27	0.038	0.011	0.36	18.5	/	/	/	/	611	763	/	/	/	/

检验员: SURVEYOR TO

QC DEPT

合格
Qualified

QC DEPT



METALLURGICAL TEST REPORT

North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

740 Imperial Road North

Certificate: 986654 ; Mail To:

Skid To:

Date: 9/16/2014 Page: 1

Customer: 007025 003

Steel: 304/304L

Finish: CD

Corrosion: ASTM A262-10 Prac A/E OK

Your Order: C15295-REV

NAS Order: PN 0043326 01

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw

UNS 30400/30403 EN 10204 3.1, ASTM A484/13a

ASTM A276/22, ASTM A479/13a, ASTM A182/13 CHEM ONLY

ASTM A479/13, ASME SA182/10 CHEM ONLY

AMS 5639H, AMS 5647J, AMS QQ8-763B, QQ8-763F, ASTM A899/11

SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/08 CL 1 GR B8

ASTM A193/10A-ASME SA193/10 CL 1 GR B8

REMARKS:

COMPLIES W/REQUIREMENTS OF DPAF 252.225-7009 EU DIRECTIVE

2011/65/EU RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND NPG

IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

2091058.

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
B05475 5		.3750		2.229	144.00	1	1	013861

CHEMICAL ANALYSIS CN(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/08

HEAT	CN	C %	CO %	CR %	CU %	EN %	MO %	N %	NI %	P %
H085	US	.0149	.1530	18.0480	.4365	1.3480	.3115	.0750	8.5010	.0320
		S %	SI %							
		.0225	.2230							

MECHANICAL PROPERTIES

Product Id	1 d o i c x	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 2"
B05475 5	R L	201.0	78.89	100.52	73.92	46.10

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

ABHIJEET BHAVE

9/16/2014

60332

Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : LES ACIERS TRANSBEC (1997) LTEE.

Adresse / Address : 4054 BOUL. LE CORBUSIER, #201
LAVAL, QC
H7L5R2

commande Sapa / Sapa order # : 4060221

bon de commande / Purchase order # : OU-42589

de matrice / Die # : MS 9907

Description : 5/8" DIA ROD

Alliage & trempage / Alloy & temper : 4061 T6 Longueur / Length : 6096 MM

de contrôle / Control # :

20744-2

de coulée / Cast # :

60245

DAS
9

Dureté Rockwell E /
Rockwell E hardness : 92 HRE

Min. requis /
Min. required : 88 HRE

Max. permis /
Max. permitted : 100 HRE

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0.20 - 0.60	0.35 Max	0.10 Max	0.10 Max	0.45 - 0.90	0.10 Max	0.10 Max	0.10 Max
6006	0.60 - 0.90	0.35 Max	0.10 Max	0.10 Max	0.40 - 0.60	0.10 Max	0.10 Max	0.10 Max
6006A	0.66 - 0.74	0.14 - 0.28	0.08 - 0.16	0.18 - 0.26	0.46 - 0.54	0.03 Max	0.05 Max	0.05 Max
6061	0.40 - 0.80	0.70 Max	0.15 - 0.40	0.15 Max	0.80 - 1.20	0.04 - 0.35	0.25 Max	0.15 Max
6351	0.7 - 1.3	0.5 Max	0.10 Max	0.40 - 0.80	0.40 - 0.80	—	0.20 Max	0.20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-08 excepté pour la section 8.2 (nombre de spécimen).

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-08 except for section 8.2 (number of specimen).

Sincèrement vôtre,
Yours truly,

date : 2014-07-11

RAI 58

BON DE LIVRAISON

65195
②

VENDU A
ACIERS TRANSBEC (1997) LTEE
4054, BO'JL LE CORBUSIER
#201
LAVAL, QC
H7L 5R2
NO CLIENT: 3693

LIVRE A
NO CLIENT: L-3693 3

NO DU BON 105251 **DATE D'** 30/Jul/15

NIR: R-015478-2
NO COMMANDE CLIENT: OU-44186
CHAUFFEUR:

NO DE TELEPHONE DU CLIENT:
REPRESENTANT:

NO. ITES	NO. DE FILIERE	NO. PIECE CLIENT	DESCRIPTION ALLIAGE / TREFILAGE	LONGUEUR	Q. N. NO.	COMMANDE CLIENT NB PIECES KILOS	A VENIR NB PIECES KILOS	NO TICKET NB PIECES	EN LIVRAISON NB PIECES KILOS	%	REMARQUES
18	SA00578		TIGE RONDE 3/4" 6061/T6	6098mm	NATUREL MILL	104 500	0 0	349707	119 551	100.0%	
Sous-Total:								1	119 551		

Mill Test (Tensile Properties of Aluminum)

Order No.	Alloy	Yield (ksi)	Ultimate Tensile (ksi)	Total Elongation (%)	Hardness (Rockwell E)	Test No.
93532-18-1A1	6061	33.5	42.4	20.85	90.50	3645

Certificate of compliance (Certificat de conformité)

Normes: (ANSI H35.1-1997) & (ASTM B221)

Order No.	Hardness (Webster) #1 #2	Cast No.	CAST CHEMICAL COMPOSITION:																	
93532-18-1A1		29218	Al	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	B	Zr	Bi	Pb	Sr	Co
			98.05	0.56	0.19	0.21	0.06	0.85	0.06	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

AVISER SANS FAUTE.

1 HEURES AVANT LA LIVRAISON POUR CONFIRMER AVEC LE CLIENT

TOTAL EN LIVRAISON: 2418 11830

1 bdl 25 JFK

RÉCEPTION
DATE 30-07-2015
VÉRIFIÉ PAR [Signature]

SIGNATURE CLIENT:

DATE:

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1010S18GA
 DATE: 15-11-11

PO / BATCH NO.: P030311 / M133560

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 2 sheet
 QUANTITY INSPECTED: 2 sheet
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .043
 THICKNESS RECEIVED: .043
 SHEET SIZE ORDERED: 4'x8'
 SHEET SIZE RECEIVED: 4'x8'

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL	(Y)	N	
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT MATERIAL	(Y)	N	
CORRECT REF # TO LINK CERT	(Y)	N	47# 765136
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	M133560
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	

testers located in the Quality Office

QC18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u> <u>9</u> DATE: <u>15-11-11</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: H2024785.050
 DATE: 15-11-11

PO / BATCH NO.: D30311 / H133560

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 250
 QUANTITY INSPECTED: 250
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .050"
 THICKNESS RECEIVED: .050"
 SHEET SIZE ORDERED: 48 sq ft
 SHEET SIZE RECEIVED: 48 sq ft

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL	(Y)	N	
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT MATERIAL	(Y)	N	
CORRECT REF # TO LINK CERT	(Y)	N	HT# 63963
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION 9-89 INSPECTED BY: _____ DATE: <u>15-11-11</u>	ENGINEERING SIGNOFF (if required) SIGNED OFF BY: _____ DATE: _____
--	--

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304B1.000x1.000
 DATE: 5-11-11

PO / BATCH NO.: P030311/M133560

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.00"
 THICKNESS RECEIVED: 1.00"
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL	(Y) N	
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT MATERIAL	(Y) N	
CORRECT REF # TO LINK CERT	(Y) N	UT# 355G2016
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u> <u>9</u> DATE: <u>5-11-11</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304 B2.625 x 3.000"

PO / BATCH NO.: P030311 / M133560

DATE: 15-11-11

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .625"
 THICKNESS RECEIVED: .640"
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	☒ N	
CORRECT FINISH	☒ N	
CORROSION	☒ N	
CORRECT GRAIN DIRECTION	☒ N	
CORRECT MATERIAL	☒ N	
CORRECT THICKNESS	☒ N	Acceptable
PHOTO REQUIRED	☒ N	
CORRECT MATERIAL	☒ N	
CORRECT REF # TO LINK CERT	☒ N	HT. 264347
CORRECT MATERIAL IDENTIFICATION	☒ N	
CORRECT M# ON THE MATERIAL	☒ N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION INSPECTED BY: <u>9-89</u> DATE: <u>15-11-11</u>	ENGINEERING SIGNOFF (if required) SIGNED OFF BY: _____ DATE: _____
---	---

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: AL6061 T6 0.750
 DATE: 15-11-11

PO / BATCH NO.: P030311 / M13560

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 20'
 QUANTITY INSPECTED: 20'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .6750"
 THICKNESS RECEIVED: .7500"
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL	(Y) N	
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT MATERIAL	(Y) N	
CORRECT REF # TO LINK CERT	(Y) N	HT# 27218 27218
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 13 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u> <u>9</u> a.89 DATE: <u>15-11-11</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304P.375
 DATE: 11-15-11

PO / BATCH NO.: P030311 / M133560

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .375
 THICKNESS RECEIVED: .375
 SHEET SIZE ORDERED: 12'12"
 SHEET SIZE RECEIVED: 12'12"

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL	(Y)	N	
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT MATERIAL	(Y)	N	
CORRECT REF # TO LINK CERT	(Y)	N	WT# M285
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC-18 INSPECTION		ENGINEERING SIGN OFF (if required)	
INSPECTED BY: <u>9</u> DATE: <u>11-15-11</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: HL6061T680.625
 DATE: 15-11-11

PO / BATCH NO.: 8030311/113560

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 20'
 QUANTITY INSPECTED: 20'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .625"
 THICKNESS RECEIVED: .625"
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL	(Y) N	
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT MATERIAL	(Y) N	
CORRECT REF # TO LINK CERT	(Y) N	<u>HT# 60245</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 13 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>9</u> DATE: <u>15-11-11</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO30311

Purchase Order Date 10/29/2015

PO Print Date 10/29/2015

Page Number 1 of 4

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

CAMPI STEEL
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED

Contact Name

Vendor Phone 800 667 4248

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
----------	--	------------------------	--------------------------------------	----	--------------------------------	---------------	----------------

1	M1010S18GA	1010/1025 SHEET .048	11/4/2015 Yes 11/4/2015		64.00 ✓ sf	\$1.58	\$101.06
MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W MINIMUM YIELD TENSILE STRENGTH = 28KSI MINIMUM ULTIMATE TENSILE STRENGTH = 42 KSI COLD ROLLED							

Line Total: \$101.06

2	M2024T3S.050	2024-T3 .050 sheet	11/4/2015 Yes 11/4/2015		48.00 ✓ sf	\$7.70	\$369.60
MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209							

Line Total: \$369.60

SP15-11-9

Note:

10/29/2015



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO30311

Purchase Order Date 10/29/2015

PO Print Date 10/29/2015

Page Number 2 of 4

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

CAMPI STEEL
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 800 667 4248

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

3	M303B1.000X03.000	303 BAR 1" X 3'	11/4/2015 Yes 11/4/2015	12.00 f B/D	\$76.36	\$916.35
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MATERIAL: AISI 303 SS BAR AS PER ASTM A582
NOTE: AISI 304/316 NOT ACCEPTABLE

Line Total: \$916.35

5	M303R1.000	303 Round Bar 1.00	11/4/2015 Yes 11/4/2015	12.00 ✓ f B/D	\$8.00	\$96.00
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MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582
NOTE: AISI 304/316 NOT ACCEPTABLE

Line Total: \$96.00

6	M304B0.625X3.000	304 BAR .625 X 3.00	11/4/2015 Yes 11/4/2015	12.00 ✓ f	\$24.55	\$294.60
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MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
AS PER ASTM A276 OR ASTM A240
NOTE: AISI 303 NOT ACCEPTABLE

DAS
9
9-89

Line Total: \$294.60

Note:

10/29/2015



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO30311

Purchase Order Date 10/29/2015

PO Print Date 10/29/2015

Page Number 3 of 4

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

CAMPI STEEL
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 800 667 4248

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

7	M304B1.000X1.000	304 bar 1.00 x 1.00	11/4/2015	12.00	✓	\$17.68	\$212.14
			Yes	f			

11/4/2015 DAS
9
9-89

MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
AS PER ASTM A276 OR ASTM A240
NOTE: AISI 303 NOT ACCEPTABLE

Line Total: \$212.14

8	M304R0.375	304 ROUND BAR 0.375	11/4/2015	12.00	✓	\$1.22	\$14.59
			Yes	f			

11/4/2015 DAS
9
9-89

MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276

(NOTE: AISI 303 NOT ACCEPTABLE)

Line Total: \$14.59

9	M6061T6R0.625	6061-T6 Round Bar .625"	11/4/2015	20.00	✓	\$1.16	\$23.23
			Yes	f			

11/4/2015 DAS
9
9-89

MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR
ASTM B221

SP15-11-9

Note:

10/29/2015



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO30311**

Purchase Order Date 10/29/2015

PO Print Date 10/29/2015

Page Number 4 of 4

Order From :

VC-CAM002

CAMPI STEEL
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 800 667 4248

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

Line Total: \$23.23

10	M6061T6R0.750	6061-T6 Round Bar .750"	11/4/2015	DAS 9 9-89	20.00 ✓	\$1.66	\$33.28
			Yes 11/4/2015		f		

Line Total: \$33.28

11	71401-45	PROCUREMENT QUALITY CLAUSES	11/4/2015		1.00 ✓	\$0.00	\$0.00
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Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality document

No
11/4/2015

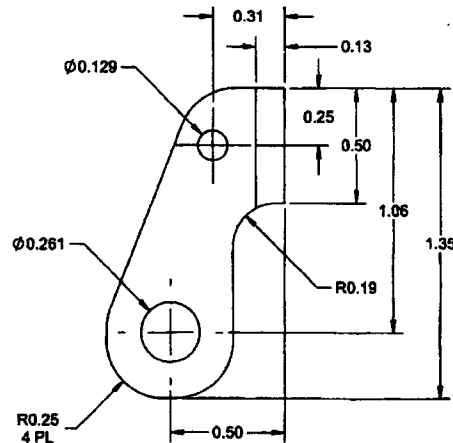
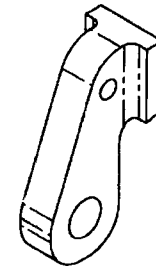
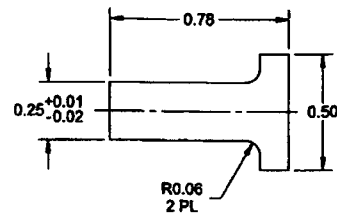
Line Total: \$0.00

PO Total: \$2,060.85

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 2

Change Date: 10/29/2015



D5333-1 LOCKING BRACKET

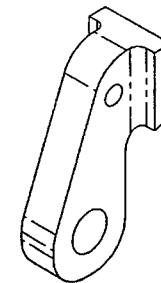
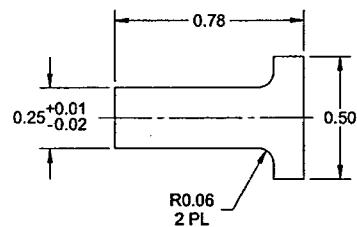
NOTES:

- 1) MATERIAL: AISI 304/316 SS BAR OR SS PLATE
PER ASTM A240 OR ASTM A276
REF DART SPEC M304B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.05 lbs

RELEASED
2016-01-21
EIN 16-28

APPROVED

A NEW ISSUE		RF	15.08.10
REV.	DESCRIPTION		BY DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	AK	DRAWING NO.	REV. A
MFG. APPR.	JLM	D5333	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	LOCKING BRACKET	NTS
DATE	15.08.10	COPYRIGHT © 2016 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR ANY OTHER PROJECTS TO ANY OTHER PERSON OR PROJECT WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	



0.31

released at
rev B

R
2

NOTES:

- 1) MATERIAL: AISI 304/316 SS BAR OR SS PLATE
PER ASTM A240 OR ASTM A276
REF DART SPEC M304B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.05 lbs

RELEASED
2017-03-22
EEN17-535

APPROVED

B	Ø0.266 WAS Ø0.261 (ZN C6-1) PER FLIGHT TEST INPUTS	RF	17.02.09
A	NEW ISSUE	RF	15.08.10
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	VS	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5333	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	LOCKING BRACKET	NTS
DATE	17.02.09	COPYRIGHT © 2015 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	